

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JEFF J. GUELL, STEVE E. SCHROEDER,  
RODERICK LEITCH, NORMAN MARSTAD  
and MICHAEL DEVOGEL

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Appeal No. 2005-2092  
Application No. 09/608,234

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ON BRIEF

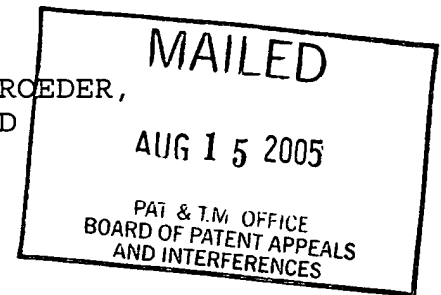
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Before THOMAS, KRASS, and GROSS, Administrative Patent Judges.  
KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-26.

The invention pertains to a helmet-mounted display vision system for vehicles, best illustrated by reference to representative independent claim 1, reproduced as follows:



1. An enhanced vision system for mobile vehicles, comprising:

an array of vision sensors fixedly mounted on the exterior of a vehicle, each sensor comprising a non-turret mounted immovable sensor and being capable of generating image signals;

a recording medium for storing the image signals from the array of vision sensors;

a processor for sampling the stored image signals from the recording medium and producing an output signal therefrom;

a display connected to receive the output signal from the processor and superimpose it on a see-through visor which also selectively permits an operator to view actual images disposed in front of said visor; and

a tracking system associated with the display that monitors the movement of the head of the operator and transmits a tracking signal to the processor, the processor producing the output signal based on feedback from the tracking signal.

The examiner relies on the following references:

Muller	4,057,782	Nov. 8, 1977
Krouglicof et al. (Krouglicof)	4,649,504	Mar. 10, 1987
Myrick	5,166,789	Nov. 24, 1992
Kaneko	5,237,418	Aug. 17, 1993
Hale et al. (Hale)	5,317,394	May 31, 1994
Ferguson	5,343,313	Aug. 30, 1994
Hale et al. (Hale 364)	5,418,364	May 23, 1995
Okamura et al. (Okamura)	5,572,343	Nov. 5, 1996

Claims 1-26 stand rejected under 35 U.S.C. §103. As evidence of obviousness, the examiner offers Hale and Ferguson with regard to claims 1-3, 6-8, 10-14, 17, 20, and 21, adding Myrick with

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regard to claims 4, 5, and 15, but adding Muller to the original combination with regard to claims 18 and 19, and adding Hale 364 to the original combination with regard to claim 9. With regard to claim 16, the examiner offers Hale, Fergason, Myrick and Kaneko. The examiner offers Hale, Fergason, and Okamura with regard to claims 22-24, and 26, adding Krouglicof with regard to claim 25.

Reference is made to the brief and answer for the respective positions of appellants and the examiner.

#### OPINION

In rejecting claims under 35 U.S.C. §103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teachings, suggestions or implications in the prior

art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1040, 228 USPQ 685, 687 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1051, 189 USPQ 143, 146-147 (CCPA 1976). Only those arguments actually made by appellant have been considered in this decision. Arguments which appellant could have made but chose not to make in the brief have not been considered and are deemed to be waived [see 37 CFR §41.67(c)(1)(vii)].

With regard to claims 1-3, 6-8, 10-14, 17, 20, and 21, it is the examiner's position that Hale teaches the claimed subject matter (pointing to specific portions of Hale at pages 3-4 of the answer) but for a see-through visor. The examiner relies on Ferguson's teaching of such a see-through visor, for permitting an operator to view actual images disposed in front of the visor.

The examiner concludes that it would have been obvious to modify Hale with the teaching of Ferguson "so as to allow an operator to view both outside scene and electronic images (see column 5, lines 8-11) and the operator's eye are being protected from electromagnetic energy by using a see-through LCD visor (14) (see column 1, lines 25-31)" (answer-page 4).

For their part, appellants essentially make two arguments. The first is that there is no disclosure in Ferguson that the disclosed heads-up display is anything more than the conventional approach of displaying flight data or other information, i.e., Ferguson's system

"is not a conformal system, as disclosed and claimed by Appellants, wherein both the artificially generated and real images may be viewed together by the pilot through the visor, with the artificially generated image being displayed in conformity with the real image so that the effect is seamless to the pilot. Rather, the Ferguson

patent system alternately either permits the pilot to view the actual surroundings of the pilot through the visor, or blocks that view for the pilot's protection, and substitutes instead an artificially generated image which is sufficient to permit him to continue to pilot the aircraft, on an emergency basis, for a short period of time..." (brief-page 5).

The second argument is that Hale does not teach usage of staring type sensors, as claimed, but rather, specifically teaches the usage of turret-mounted, movable sensors, and, in fact, teaches away from using staring type sensors by reporting their use in the background section of the patent and then proceeding to teach away by reciting the problems with this approach (brief-page 6, citing column 2, lines 5-30, of Hale).

We have reviewed the evidence before us, including the arguments of appellants and the examiner, and we conclude therefrom that the examiner has established a prima facie case of obviousness which has not been successfully overcome by appellants. Accordingly, we will sustain the rejection of claims 1-3, 6-8, 10-14, 17, 20, and 21 under 35 U.S.C. §103.

Regarding the first argument, "The name of the game is the claim," In re Hiniker, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529

(Fed. Cir. 1998). We must focus on the instant claim language to determine what it is that appellants seek to protect.

When we study independent claim 1, we find that it requires, inter alia, a display to superimpose the output signal from a processor on a see-through visor "which also selectively permits an operator to view actual images disposed in front of said visor." Clearly, Ferguson discloses a helmet having a see-through visor 14, wherein "one image is a scene outside an aircraft (or other vehicle) [i.e., an actual image] and the other is the information provided by a heads up display [i.e., the output from a processor, or a processor-generated image]" (column 5, lines 9-11). Also, at column 3, lines 12-13, of Ferguson: "one input is an image [processed] and a second input is real space [actual]." This is all the instant claims require in this regard.

Contrary to appellants' argument, the claims do not require a "conformal system" wherein both the artificially generated and real images may be viewed together by the pilot through the visor, with the artificially generated image being displayed "in conformity" with the real image "so that the effect is seamless to the pilot."

Arguments not commensurate in scope with the claim language are not persuasive.

With regard to the second argument, we do not agree with appellants that Hale "teaches away" from the instant claimed subject matter.

A reference may be said to "teach away" when a person of ordinary skill, upon [examining] the reference, would be discouraged from following the path set out in the reference or would be led in a direction divergent from the path that was taken by the applicant. In re Gurley, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994).

Hale teaches, starting at column 1, line 65, and going through column 2, line 49, that a large number of staring sensors fixed to a host platform were used in the prior art. Then Hale proceeds to recite various disadvantages of such staring sensors in covering a wide "field-of-regard," and in "greater processor load and increased complexity." Therefore, Hale decides that "sensors should either be positioned or movable to cover a wide field-of-regard" (column 2, lines 41-43).



Thus, while Hale prefers to use movable, rather than fixed, or staring, sensors, for certain advantages, Hale is not teaching that staring sensors should not be used under any circumstances, and he merely decides not to use them for their poorer "field-of-regard." We do not think that the skilled artisan would be discouraged from using staring sensors, or, in any way, be led in a direction divergent from that taken by appellants. Clearly, non-turret mounted immovable sensors were known and taught as being known by Hale. There is no recited use in the instant claims which Hale teaches as a disadvantage of staring sensors, so that the artisan viewing the Hale disclosure would be led away from the instant claimed invention. We agree with the examiner that the choice of the particular sensors to be used is one to be made by the artisan, taking into account the advantages/disadvantages of each.

We would also note, as did the examiner, that appellants themselves indicate, at page 2, lines 5-6, of the instant specification, that Hale does, indeed, disclose "an array of staring sensors fixed to a host platform (e.g., an aircraft)." Appellants would be hard pressed to now argue that Hale does not teach such staring sensors and, in fact, teaches away from such.

For the reasons supra, we will not sustain the rejection of claims 1-3, 6-8, 10-14, 17, 20, and 21 under 35 U.S.C. § 103.

Since appellants rely on the same arguments with regard to claim 9 (brief-page 8), for the same reasons, we will sustain the rejection of claim 9 under 35 U.S.C. § 103.

Similarly, with regard to claims 4, 5, 15, 16, 18, and 19, appellants present the same arguments, at pages 8-9 of the brief. Therefore, we will also sustain the rejection of these claims under 35 U.S.C. § 103.

With regard to claims 22-24, and 26, appellants make the further argument (brief-page 10) that the claims recite a controller which permits varying levels of intensity of light to be transmitted through the screen or for alternatively selectively disabling selected regions of the screen so that light cannot pass through those selected regions. Appellants contend that the examiner's rationale, combining Okamura with Hale, is flawed because Hale does not disclose a system wherein the operator can view both outside image and electronic image simultaneously.

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We do not agree with appellants' assessment of Hale. For the reasons supra, we find that Ferguson does suggest that an operator can view both outside image and electronic image simultaneously. Although Ferguson is relied upon by the examiner as part of the rationale for the rejection of these claims, appellants' argument does not appear to even recognize that it is Ferguson, and not Hale, which suggests the argued language of the claims.

Therefore, we will also sustain the rejection of claims 22-24, and 26 under 35 U.S.C. § 103.

Moreover, since appellants' argument anent the rejection of claim 25 is the same one relied upon for the previous rejections (see page 10 of the brief), we also will sustain the rejection of claim 25 under 35 U.S.C. § 103.

Having considered all of appellants' arguments and finding none of them persuasive of nonobviousness in the face of the examiner's prima facie showing, we have sustained the rejection of claims 1-26 under 35 U.S.C. § 103.

The examiner's decision is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

JAMES D. THOMAS  
Administrative Patent Judge

ERROL A. KRASS  
Administrative Patent Judge

BOARD OF PATENT  
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ANITA PELLMAN GROSS  
Administrative Patent Judge

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